

***WORLDWIDE MARKET SURVEY
OF
SCADA, ENERGY MANAGEMENT SYSTEMS
AND
DISTRIBUTION MANAGEMENT SYSTEMS
IN
ELECTRIC UTILITIES: 2008-2010***

**SAMPLE
VOLUME II
FINAL REPORT**

INTERNATIONAL MARKET

May 2008

**Newton-Evans Research Company
Ellicott City, MD 21042**

SECTION 1	page 2
SECTION 2	page 4
SECTION 3	page 6
SECTION 4	page 77
SECTION 5	page 134

SECTION 1

INTRODUCTION

WORLDWIDE MARKET SURVEY OF SCADA, ENERGY MANAGEMENT SYSTEMS AND DISTRIBUTION MANAGEMENT SYSTEMS IN ELECTRIC UTILITIES

2008 - 2010

VOLUME II

FINAL REPORT

INTERNATIONAL MARKET

This international market report has been prepared based on an update to Newton-Evans Research Company's 2005-2007 and earlier 2003-2005 research series entitled *World Market Survey of SCADA and Energy Management Systems in Electric Utilities..*

This report, Volume 2 in the 2008 series of EMS, SCADA and DMS market studies, contains information from a survey of more than 71 international utilities.

Major and mid-size utilities in more than 50 countries assisted Newton-Evans staff through their active participation in this study. More than 150 different control center based systems were identified as being currently installed among these utilities.

A total of 29 suppliers were represented with one or more types of control systems. More than 70 planned significant replacements, additions or major upgrades were identified from among this group.

Summary:

The participation of more than 70 international electric utilities, the level of respondent title, and the level of knowledge exhibited about energy management systems (EMS) and supervisory control and data acquisition (SCADA) systems, and distribution management systems (DMS), in the electric utility environment, have resulted in a thorough and comprehensive report, as has been the standard of quality in dozens of utility-related market studies published by Newton-Evans Research Company since 1978.

The participating utilities can no longer be summarily profiled in a separate volume of this series of reports due to ongoing security and confidentiality concerns.

This report is structured around the questions asked of the utility participants. That is to say, the report covers Question 1 with narrative summaries, tables and figures as appropriate, then proceeds to Question 2, and so on.

Tables are arranged in a series format. All "n-1" tables are summaries to each question obtained from all utilities, regardless of type.

The "n-2" series is based on the world region of the responding utility. The following three groupings are included in this table series: Europe; Asia-Pacific and rest-of-world.

Listing of comments and other write-in answers are provided in n-1A tables.

SECTION 2

FOREWORD

WORLDWIDE MARKET SURVEY OF SCADA, ENERGY MANAGEMENT SYSTEMS AND DISTRIBUTION MANAGEMENT SYSTEMS IN ELECTRIC UTILITIES

2008 - 2010

VOLUME II

FINAL REPORT

INTERNATIONAL MARKET

A) Sample Selection

The sample selected for this survey volume was originally developed using Newton-Evans Research Company's own international database of utility officials, and supplemented with the newest edition of Platt's Energy publication entitled: UDI International Electric Power Sourcebook 2007. The Newton-Evans research sample included the major utilities in more than 50 countries from throughout the world.

Utilities were contacted either by phone, e-mail, or fax, or a combination thereof, and were followed up by e-mail correspondence.

B) Survey Respondents

All of the questionnaires returned to Newton-Evans Research Company in time to be tabulated for this report included the current recontact information required for the survey respondent. The surveys were answered by senior utility officials and managers in either the operations or engineering departments. Small honorariums and summary reports were provided as incentives for survey participation.

C) Questionnaire

The survey questionnaire format and layout are similar to dozens of others used by Newton-Evans Research Company over the past 30 years. Series subscribers to prior editions were given the opportunity to submit questions for possible inclusion in the final survey format.

Twelve question groups (accounting for over 35 questions) were included on the survey questionnaire.

Question 12 is a new topic included in this year's study.

D) Survey Respondent Cooperation Incentive

As an incentive for utilities to respond to the survey questionnaire, Newton-Evans Research Company provided a complimentary copy of the Executive Summary of this volume's final report. Nearly all participants requested and received a copy of this summary. Small honorariums were also provided in most cases in appreciation of the time and effort to complete the survey. Over the years, charity donations in the name of Newton-Evans international survey respondents made to UNICEF, Red Cross/Red Crescent and other charitable organizations have amounted to several thousands of dollars.

E) Accompanying Report Commentary

Along with the narrative analysis and cross-tabulation of survey data, Newton-Evans Research Company has commented on observations and findings or has provided its own interpretations of findings based on more than a quarter century of related electric power T&D industry research projects and programs.

SECTION 3

TABLE OF CONTENTS

Question	page
1. Extent of Current Use of EMS, SCADA and DMS Systems	8
2. Current/Planned Use of a Separate OMS or GMS by Year-End 2010	11
3. Current Linkages and Plans for Additional Links between EMS, SCADA and DMS Systems to Other Systems	15
4. Current and Planned use of Protocols within the Substation and from Substation to External Host/Networks	18
5. Use of External Assistance or Third Party Services Needed by Respondents for DMS/DA Activities	24
6. Approaches Used for Reducing Vulnerability on T&D Operations Networks	26
7. Current Use and Future Plans for Use of DMS Applications and Functions	28
7B. Current Use and Future Plans for Use of Distribution Analysis Applications and Functions	30
7C. Current Use and Future Plans for Use of OMS Applications and Functions	31
8. Number of RTUs and PLCs Installed and Planned for Use in Conjunction with EMS/SCADA/DMS	33

TABLE OF CONTENTS (continued)

Question	page
9. Plans for Procurement of New and Replacement SCADA, DMS and EMS Systems during 2008-2010	35
9A. Forecast Range – Value of Awards for EMS/SCADA/DMS and Energy Trading Systems and Software – International Summary	40
9B. Forecast Range – Value of Awards for EMS/SCADA/DMS and Energy Trading Systems and Software – Western Europe	41
9C. Forecast Range – Value of Awards for EMS/SCADA/DMS and Energy Trading Systems and Software – Eastern Europe & CIS	42
9D. Forecast Range – Value of Awards for EMS/SCADA/DMS and Energy Trading Systems and Software – Latin America	43
9E. Forecast Range – Value of Awards for EMS/SCADA/DMS and Energy Trading Systems and Software – Mid-East/Africa	44
9F. Forecast Range – Value of Awards for EMS/SCADA/DMS and Energy Trading Systems and Software – Asia Pacific	45
10. Suppliers Most Likely to be Considered for EMS, SCADA and DMS Purchases; Ranking of Suppliers by Attributes	46
11. New Features, Tools, Applications or Services Mentioned by Respondents as Desirable to Become Available from EMS/SCADA/DMS Vendors	75
12. Utility Focus on Key Components of the Intelligent Grid During 2008-2010	76